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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/548,203	04/13/2000	Theodore M. Osborne	1389	6649

22494 7590 10/15/2002

DALY, CROWLEY & MOFFORD, LLP
SUITE 101
275 TURNPIKE STREET
CANTON, MA 02021-2310

[REDACTED] EXAMINER

STEELMAN, MARY J

[REDACTED] ART UNIT [REDACTED] PAPER NUMBER

2122

DATE MAILED: 10/15/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

[Signature]

Office Action Summary	Application No.	Applicant(s)	
	09/548,203	OSBORNE ET AL.	
	Examiner	Art Unit	
	Mary J. Steelman	2122	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 6/20/00, 8/20/00, 10/10/00 & 5/14/02.

2a) This action is FINAL. 2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1-36 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) Claim(s) _____ is/are allowed.

6) Claim(s) 1-36 is/are rejected.

7) Claim(s) _____ is/are objected to.

8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on 13 April 2000 is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11) The proposed drawing correction filed on _____ is: a) approved b) disapproved by the Examiner.
 If approved, corrected drawings are required in reply to this Office action.

12) The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All b) Some * c) None of:

1. Certified copies of the priority documents have been received.

2. Certified copies of the priority documents have been received in Application No. _____.

3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) The translation of the foreign language provisional application has been received.

15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)
3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____	6) <input type="checkbox"/> Other: _____

1. Claims 1 – 36 are presented for examination.

DETAILED ACTION

Drawings

2. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the figs. 8 - 14 must be shown or the features canceled from the claims. No new matter should be entered. Figures 8 – 14 were addressed in the Specification, but not submitted with the application.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Specification

3. The Specification is objected to for the following reasons:

The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed. The following title is suggested: “Test code generator, engine and data analyzer for testing middleware applications.”

4. All related applications and patents must be cross referenced.

5. Reference to a “Microfiche Appendix”, Page 18, line 31 of the Specification refers to Appendix 3:

Submission of computer program listings.

(a) General. Descriptions of the operation and general content of computer program listings should appear in the description portion of the specification. A computer program listing for the purpose of this section is defined as a printout that lists in appropriate sequence the instructions, routines, and other contents of a program for a computer. The program listing may be either in machine or machine-independent (object or source) language which will cause a computer to perform a desired procedure or task such as solve a problem, regulate the flow of work in a computer, or control or monitor events. Computer program listings may be submitted in patent applications as set forth in paragraphs (b) and (c) of this section.

(b) Material which will be printed in the patent: If the computer program listing is contained in 300 lines or fewer, with each line of 72 characters or fewer, it may be submitted either as drawings or as part of the specification.

(1) Drawings. If the listing is submitted as drawings, it must be submitted in the manner and complying with the requirements for drawings as provided in § 1.84. At least one figure numeral is required on each sheet of drawing.

(2) Specification.

(i) If the listing is submitted as part of the specification, it must be submitted in accordance with the provisions of § 1.52.

(ii) Any listing having more than 60 lines of code that is submitted as part of the specification must be positioned at the end of the description but

before the claims. Any amendment must be made by way of submission of a substitute sheet.

(c) As an appendix which will not be printed: Any computer program listing may, and any computer program listing having over 300 lines (up to 72 characters per line) must, be submitted on a compact disc in compliance with § 1.52(e). A compact disc containing such a computer program listing is to be referred to as a “computer program listing appendix.” The “computer program listing appendix” will not be part of the printed patent. The specification must include a reference to the “computer program listing appendix” at the location indicated in § 1.77(b)(4).

(1) Multiple computer program listings for a single application may be placed on a single compact disc. Multiple compact discs may be submitted for a single application if necessary. A separate compact disc is required for each application containing a computer program listing that must be submitted on a “computer program listing appendix.”

(2) The “computer program listing appendix” must be submitted on a compact disc that complies with § 1.52(e) and the following specifications (no other format shall be allowed):

- (i) Computer Compatibility: IBM PC/XT/AT, or compatibles, or Apple Macintosh;
- (ii) Operating System Compatibility: MS-DOS, MS-Windows, Unix, or Macintosh;

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(iii) Line Terminator: ASCII Carriage Return plus ASCII Line Feed;

(iv) Control Codes: the data must not be dependent on control characters or codes which are not defined in the ASCII character set; and

(v) Compression: uncompressed data.

[46 FR 2612, Jan. 12, 1981; para. (b)(1), 54 FR 47519, Nov. 15, 1989, effective

Jan. 16, 1990; revised, 61 FR 42790, Aug. 19, 1996, effective Sept. 23, 1996; paras.

(b) and (c) revised, 65 FR 54604, Sept. 8, 2000, effective Sept. 8, 2000 (effective date corrected, 65 FR 78958, Dec. 18, 2000

The description portion of this application contains a computer program listing consisting of more than three hundred (300) lines. In accordance with 37 CFR 1.96(c), a computer program listing printout of more than three hundred lines must be submitted as a computer program listing appendix on compact disc conforming to the standards set forth in 37 CFR 1.96(c)(2) and must be appropriately referenced in the specification (see 37 CFR 1.77(b)(4)). Accordingly, applicant is required to cancel the computer program listing appearing in the specification on page 18, line 31, file a computer program listing appendix on compact disc in compliance with 37 CFR 1.96(c) and insert an appropriate reference to the newly added computer program listing appendix on compact disc at the beginning of the specification.

6. The spacing of the lines of the specification is such as to make reading and entry of amendments difficult. New application papers with lines double spaced on good quality paper are required.

Content of Specification

(a) Title of the Invention: See 37 CFR 1.72(a) and MPEP § 606. The title of the invention should be placed at the top of the first page of the specification unless

the title is provided in an application data sheet. The title of the invention should be brief but technically accurate and descriptive, preferably from two to seven words may not contain more than 500 characters.

- (b) Cross-References to Related Applications: See 37 CFR 1.78 and MPEP § 201.11.
- (c) Statement Regarding Federally Sponsored Research and Development: See MPEP § 310.
- (d) Incorporation-By-Reference Of Material Submitted On a Compact Disc: The specification is required to include an incorporation-by-reference of electronic documents that are to become part of the permanent United States Patent and Trademark Office records in the file of a patent application. See 37 CFR 1.52(e) and MPEP § 608.05. Computer program listings (37 CFR 1.96(c)), "Sequence Listings" (37 CFR 1.821(c)), and tables having more than 50 pages of text were permitted as electronic documents on compact discs beginning on September 8, 2000.

Or alternatively, Reference to a "Microfiche Appendix": See MPEP § 608.05(a). "Microfiche Appendices" were accepted by the Office until March 1, 2001.

- (e) Background of the Invention: See MPEP § 608.01(c). The specification should set forth the Background of the Invention in two parts:
 - (1) Field of the Invention: A statement of the field of art to which the invention pertains. This statement may include a paraphrasing of the applicable U.S. patent classification definitions of the subject matter of the claimed invention. This item may also be titled "Technical Field."
 - (2) Description of the Related Art including information disclosed under 37 CFR 1.97 and 37 CFR 1.98: A description of the related art known to the applicant and including, if applicable, references to specific related art and problems involved in the prior art which are solved by the applicant's invention. This item may also be titled "Background Art."
- (f) Brief Summary of the Invention: See MPEP § 608.01(d). A brief summary or general statement of the invention as set forth in 37 CFR 1.73. The summary is separate and distinct from the abstract and is directed toward the invention rather than the disclosure as a whole. The summary may point out the advantages of the invention or how it solves problems previously existent in the prior art (and preferably indicated in the Background of the Invention). In chemical cases it should point out in general terms the utility of the invention. If possible, the nature and gist of the invention or the inventive concept should be set forth.

Objects of the invention should be treated briefly and only to the extent that they contribute to an understanding of the invention.

(g) Brief Description of the Several Views of the Drawing(s): See MPEP § 608.01(f). A reference to and brief description of the drawing(s) as set forth in 37 CFR 1.74.

(h) Detailed Description of the Invention: See MPEP § 608.01(g). A description of the preferred embodiment(s) of the invention as required in 37 CFR 1.71. The description should be as short and specific as is necessary to describe the invention adequately and accurately. Where elements or groups of elements, compounds, and processes, which are conventional and generally widely known in the field of the invention described and their exact nature or type is not necessary for an understanding and use of the invention by a person skilled in the art, they should not be described in detail. However, where particularly complicated subject matter is involved or where the elements, compounds, or processes may not be commonly or widely known in the field, the specification should refer to another patent or readily available publication which adequately describes the subject matter.

(i) Claim or Claims: See 37 CFR 1.75 and MPEP § 608.01(m). The claim or claims must commence on separate sheet (37 CFR 1.52(b)). Where a claim sets forth a plurality of elements or steps, each element or step of the claim should be separated by a line indentation. There may be plural indentations to further segregate subcombinations or related steps. See 37 CFR 1.75 and MPEP § 608.01(i)-(p).

(j) Abstract of the Disclosure: See MPEP § 608.01(f). A brief narrative of the disclosure as a whole in a single paragraph of 150 words or less commencing on a separate sheet following the claims. In an international application which has entered the national stage (37 CFR 1.491(b)), the applicant need not submit an abstract commencing on a separate sheet if an abstract was published with the international application under PCT Article 21. The abstract that appears on the cover page of the pamphlet published by the International Bureau (IB) of the World Intellectual Property Organization (WIPO) is the abstract that will be used by the USPTO. See MPEP § 1893.03(e).

(k) Sequence Listing: See 37 CFR 1.821-1.825 and MPEP §§ 2421-2431. The requirement for a sequence listing applies to all sequences disclosed in a given application, whether the sequences are claimed or not. See MPEP § 2421.02.

7. The disclosure is objected to because of the following informalities: Page 16, line 5, recites "script 515" Should be –script 512--. Page 1, claim 1, line 9 and page 37, claim 23, line 11, recites "lease" Should be –least--. Appropriate correction is required.

8. The use of the trademark JAVA, JVM, Enterprise Java Beans, Component Object Modules, Java Archive file, jar, has been noted in this application. It should be capitalized wherever it appears and be accompanied by the generic terminology.

Although the use of trademarks is permissible in patent applications, the proprietary nature of the marks should be respected and every effort made to prevent their use in any manner, which might adversely affect their validity as trademarks.

Claim Rejections - 35 USC § 112

9. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

10. Claims 1-12, 14, 19 and 36 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Trademark or Trade Name as a Limitation in the Claim

Claims 1-12, 14, 19 and 36 contain the trademark/trade name JAVA, JVM, Enterprise Java Beans, Component Object Modules, Java Archive file, and jar. Where a trademark or trade name is used in a claim as a limitation to identify or describe a particular material or product, the claim does not comply with the requirements of 35 U.S.C. 112, second paragraph.

See Ex parte Simpson, 218 USPQ 1020 (Bd. App. 1982). The claim scope is uncertain since the trademark or trade name cannot be used properly to identify any particular

material or product. A trademark or trade name is used to identify a source of goods, and not the goods themselves. Thus, a trademark or trade name does not identify or describe the goods associated with the trademark or trade name. In the present case, the trademark/trade name is used to identify/describe byte code instruction set architecture and virtual machines and object components and, accordingly, the identification/description is indefinite.

Double Patenting

11. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

12. Claims 1, 3, 13, 17, 18, 23, and 31 are provisionally rejected under the judicially created doctrine of double patenting over claims 22, 4, 18, 16, (1 & 18), 22, and 18 respectively of copending Application No.09 / 482178. This is a provisional double patenting rejection since the conflicting claims have not yet been patented.

The subject matter claimed in the instant application is fully disclosed in the referenced copending application and would be covered by any patent granted on that copending application since the referenced copending application and the instant application are claiming common

subject matter, as follows: The correspondence between the instant claims and the copending Application claims is as follows:

Application 09/548203 Claim 1 compared to Application 09/482178 Claim 22:

A system for determining performance of an application under test in response to load, the system comprising...

Identical claim except claim 1, '203 is for a server having at least one JVM executing client test code, whereas claim 22, '178 is for a server having a plurality of threads thereon...

Specifically a JVM is capable of running a plurality of threads and thus the claims are a case of obvious double patenting.

Application 09/548203, Claim 3 compared to Application 09/482178, Claim 4:

Claim 3, '203 states at least one JVM is synchronized to start execution...with another ...JVM, whereas claim 4, '178 states "the step of synchronizing comprises starting each instance of test code at the same time.

Specifically, both claims are referring to a synchronized start of execution.

Application 09/548203, Claim 13 compared to Application 09/482178, Claim 18:

Claim 13, '203 states, "A method of testing a computerized application, the application under test having a plurality of software components...having at least one method...", whereas claim 18, '178 states "A method of testing a computerized application under test that allows simultaneous users ...having a plurality of ...components..."

Specifically, both claims refer to a providing test code, creating a plurality of copies of test code, simultaneously executing test code, recording times and analyzing. '203 calls for

providing a folder for each method being exercised, whereas ‘178 calls for creating a second plurality of copies of test code.

Application 09/548203, Claim 17 compared to Application 09/482178, Claim 16:

Claim 17, ‘203 states, “calculations are selected from the group consisting of the average response time...and the total response time...” whereas claim 16, ‘178 states, “analyzing comprises determining the average and maximum execution times...”

Specifically, both claims are referring to average and total response time of test execution.

Application 09/548203, Claim 18 compared to Application 09/482178, Claims 1 & 18:

Claim 18, ‘203 states “A computer program product for testing...having a plurality of software components...comprising instructions for providing test code..., instructions creating a plurality of copies...instructions for simultaneously executing..., instructions for providing a folder for each method..., instructions for recording times....instructions for analyzing...”, whereas claim 1, ‘178 states “A method of testing ...providing test code...synchronizing and executing a...test code and recording performance data...repeating..., analyzing” and claim 18, ‘178 states “A method of testing...comprising...providing test code...,creating a first plurality of copies...simultaneously executing...,creating a second plurality...,simultaneously executing...,repeating...,analyzing...”

Specifically, both claims are refer to testing code and analyzing results.

Application 09/548203, Claim 23 compared to Application 09/482178, Claim 22:

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Claim 23, '203 states "A system for determining performance... comprising... coordination software... code generator...test engine...data log holding timing data...data analyzer..." whereas claim 226, '178 states "A system for determining performance... comprising... coordination software...code generator...test engine...data log...data analyzer..."'

Specifically, the claims are identical except that claim 23, '203 calls for the code generator to provide a template for a datatable.

Application 09/548203, Claim 31 compared to Application 09/482178, Claim 18:

Claim 31, '203 states "A method of testing ...comprising the steps of providing test code...providing a class file...creating...copies of test code...simultaneously executing...recording times...creating a second plurality of copies of test code, simultaneously executing...repeating.... while recording event times...analyzing...", whereas claim 18, '178 is identical except that it doesn't call for "providing a class file for each method of said component directly to each user."

Claim Rejections - 35 USC § 102

13. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in-

(1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effect under this subsection of a national application published under section 122(b) only if the international application designating the United States was published under Article 21(2)(a) of such treaty in the English language; or
(2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that a patent shall not be deemed filed in the United States for the purposes of this subsection based on the filing of an international application filed under the treaty defined in section 351(a).

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1. Claims 1-23, 27, 31, and 34 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent 6,446,120 by Dantressangle.

Per claim 1, Dantressangle disclosed:

-coordination software. (Fig 5 & col. 7, lines 3-6, "...steps performed by the stresser main process 400 of the configurable stresser 200 to stress a Web server 104...");
-at least one code generator, receiving as an input commands from the coordination software and having as an output client test code. (Fig. 4 & col. 5, lines 66-67, "Initially, a user generates a test guide file 402 that contains the instructions for testing the Web server 104.");
-at least one test engine, receiving as an input commands from the coordination software, the test engine comprising a computer server having at least one JVM executing at least one instance of the client test code. (Col. 5, lines 26-35, "The configurable stresser 200 measures the accessibility and the responsiveness of a Web server while heavily loaded...the configurable stresser 200 provides a JAVA Applet GUI. This will allow a user to launch a very long stress test from a Web browser...");
-at least one data log having computerized memory, the memory holding timing data created by the instances of the client test code. (Col. 6, lines 22-25, "Each virtual Web browser 404 executes the structure representing the test guide file 402 and generates a result file 406 (log)");
-at least one data analyzer software, operatively connected to the data log, having an output that represents performance of the application under test in response to load. (Col. 6, lines 42-52, "...stresser main process 400 parses all the result files 406 and generates multiple reports...").

Per claim 2, Dantressangle disclosed:

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-at least one JVM executes multiple threads, each thread comprising an instance of the client test code. (Col. 6, lines 1-4, “When launched a stresser main process of the configurable stresser will generate a requested number of virtual Web browsers (i.e., “child processes””).

Per claim 3, Dantressangle disclosed:

-at least one JVM is synchronized to start execution of an instance of the client test code with another of said at least one JVM about to start execution an instance of the client test code. (Col. 6, lines 4-14, “A user indicates the number of virtual Web browsers to be generated when launching the configurable stresser...The configurable stresser can simulate many virtual Web browsers, each of which connects and sends HTTP requests to the same Web Server...many connections and HTTP requests at the same time.”).

Per claim 4, Dantressangle disclosed:

-synchronization of at least one JVM to another of said at least one JVM is performed independently of the time set on each system. (Col. 6, lines 31-34, “The Web server can receive the same or different commands from the different virtual Web browsers simultaneously.”).

Per claim 5, Dantressangle disclosed:

-at least one JVM is set to start execution of the client test code a predetermined time after another of said at least one JVM is set to start execution of the test client code. (Col. 6, lines 31-34, “The Web server can receive the same or different commands from the different virtual Web browsers simultaneously.”).

Per claim 6, Dantressangle disclosed:

-at least one JVM is set to start execution of the client test code independent of another of said at least one JVM set to start execution of the client test code. (Col. 6, lines 31-34, “The Web server

can receive the same or different commands from the different virtual Web browsers simultaneously.”).

Per claim 7, Dantressangle disclosed:

This is a computer program product version of the limitations as addressed in claim 1.

Therefore, claim 7 is rejected under the same rationale as claim 1.

Per claim 8, Dantressangle disclosed:

Claim 8 contains limitations as recited in claim 2. Therefore, claim 8 is rejected under the same rationale as claim 2.

Per claim 9, Dantressangle disclosed:

Claim 9 contains limitations as recited in claim 3. Therefore, claim 9 is rejected under the same rationale as claim 3.

Per claim 10, Dantressangle disclosed:

Claim 10 contains limitations as recited in claim 4. Therefore, claim 10 is rejected under the same rationale as claim 4.

Per claim 11, Dantressangle disclosed:

Claim 11 contains limitations as recited in claim 5. Therefore, claim 11 is rejected under the same rationale as claim 5.

Per claim 12, Dantressangle disclosed:

Claim 12 contains limitations as recited in claim 6. Therefore, claim 12 is rejected under the same rationale as claim 6.

Per claim 13, Dantressangle disclosed:

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-providing test code to exercise a component. (Col. 5, lines 65-66, "Initially, a user generates a test guide file that contains the instructions for testing the Web server." Also fig. 7, and col. 7, lines 32-34, "A test guide file is a text file, with a very simple syntax, that centralized all the information necessary for the testing/stressing process.");

-creating a plurality of copies of the test code. (Col. 3, lines 23-26, "The configurable stresser launches virtual Web browsers, each of which simulates a typical Web browser. Each Web browser performs tests on the Web server.");

-simultaneously executing the plurality of copies of the test code. (Col. 4, lines 35-38, "The configurable stresser is useful for testing the synchronization of the Web server threads by generating simultaneous HTTP requests via the virtual Web browsers.");

-providing a folder for each method of the component being exercised. (Fig. 5 & col. 7, lines 11-17, "...the stresser main process receives result files for each virtual Web browser...the stresser main process prepares a consolidated report...");

-recording times for each method of the component being exercised. (Col. 8, lines 41-60, "The timer is used to test the timing of the computer programs...as well as the connections...The stresser main process will parse the HTML, find the timers, and store the differences...");

-analyzing the recorded times to present information on performance of each method of the component being exercised. (Col. 6, lines 42-52, "...the stresser main process parses all the result files and generates multiple reports stored in one or more report files...");

Per claim 14, Dantressangle disclosed:

-the components are selected from Enterprise Java Beans and Component Object Modules. (The server software can be comprised of component objects. Col. 3, lines 21-30, "A client computer

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typically executes a configurable stresser and is coupled to a Web sever computer executing Web server software...The Web server computer also executes a data source interface and, possibly, other computer programs (possibly component based programs), for connecting to the data sources.”).

Per claim 15, Dantressangle disclosed:

-said step of recording times further comprises recording said times for each method in a respective folder for said method. (Fig. 5 & col. 7, lines 11-17, “...the stresser main process receives result files fro each virtual Web browser...the stresser main process prepares a consolidated report...”).

Per claim 16, Dantressangle disclosed:

Each folder is used to provide calculations for said method from said times recorded in the folder. (Fig. 5 & col. 7, lines 11-17, “...the stresser main process receives result files for each virtual Web browser...the stresser main process prepares a consolidated report...” Also, col. 4, lines 51-54, “...a user provides a test guide file containing instructions for testing the computer programs on the Web server and provides reference data indicating the results for successful execution of the test.”).

Per claim 17, Dantressangle disclosed:

-said calculations are selected from the group consisting of the average response time of the items within the folder, and the total response time of the items within the folder. (The user specifies the test criteria. Col. 11, lines 7-8, “The configurable stresser provides statistics for each process.”).

Per claim 18, Dantressangle disclosed:

This is a computer program product version of the limitations as addressed in claim 13.

Therefore, claim 18 is rejected under the same rationale as claim 13.

Per claim 19, Dantressangle disclosed:

Claim 19 contains limitations as recited in claim 14. Therefore, claim 19 is rejected under the same rationale as claim 14.

Per claim 20, Dantressangle disclosed:

Claim 20 contains limitations as recited in claim 15. Therefore, claim 20 is rejected under the same rationale as claim 15.

Per claim 21, Dantressangle disclosed:

Claim 21 contains limitations as recited in claim 16. Therefore, claim 21 is rejected under the same rationale as claim 16.

Per claim 22, Dantressangle disclosed:

Claim 22 contains limitations as recited in claim 17. Therefore, claim 22 is rejected under the same rationale as claim 17.

Per claim 23, Dantressangle disclosed:

-coordination software. (Fig 5 & col. 7, lines 3-6, "...steps performed by the stresser main process 400 of the configurable stresser 200 to stress a Web server 104...");
-at least one code generator, receiving as an input commands from the coordination software and having as an output client test code, said code generator providing a template for a datatable, said datatable used to provide information for exercising the application under test. (Fig. 4 & col. 5, lines 66-67, "Initially, a user generates a test guide file 402 that contains the instructions for testing the Web server 104." Also col. 3, lines 35-45, "The data source interface may be

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connected to a Database Management System (DBMS), which supports access to a data source by executing RDBMS software... The data source interface translates the data request received from a configurable stresser into one or more statements (e.g., a macro file...) that can be processed to retrieve data from data sources.”);

-at least one test engine, receiving as an input commands from the coordination software, the test engine comprising a computer server having a plurality of threads thereon, each thread executing an instance of the client test code. (Col. 4, lines 35-38 “The configurable stresser is useful for testing the synchronization of the Web server threads by generating simultaneous HTTP requests via the virtual Web browsers.”);

-at least one data log having computerized memory, the memory holding timing data created by the instances of the client test code in the plurality of threads. (Col. 6, lines 22-25, “Each virtual Web browser 404 executes the structure representing the test guide file 402 and generates a result file 406 (log).”);

-at least one data analyzer software, operatively connected to the data log, having an output that represents performance of the application under test in response to load. (Col. 6, lines 42-52, “...stresser main process 400 parses all the result files 406 and generates multiple reports...”).

Per claim 27, Dantressangle disclosed:

This is a computer program product version of the limitations as addressed in claim 23.

Therefore, claim 27 is rejected under the same rationale as claim 23.

Per claim 31, Dantressangle disclosed:

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-providing test code to exercise a component, said component including at least one method.

(Fig. 4 & col. 5, lines 66-67, “Initially, a user generates a test guide file 402 that contains the instructions for testing the Web server 104.”);

-providing a class file for each method of said component directly to each user. (Col. 1, lines 61 –65, “Compared test results are received from each virtual browser indicating a response to each transmitted command received from the server computer. The received test results are consolidated into a report of compared test results.”);

-creating a first plurality of copies of the test code. (Col. 2, lines 3-7, “...enable users to create tests for their particular Web server environments....combine regression and performance testing...”);

-simultaneously executing the first plurality of copies of test code while recording times between events in each of the first plurality of copies of test code. (Col. 6, lines 31-34, “The Web server can receive the same or different commands from the different virtual Web browsers simultaneously. This tests the functionality and efficiency of the Web server.”);

-creating a second plurality of copies of test code. (Col. 6, lines 4-14, “...a stresser main process of the configurable stresser will generate a requested number of virtual Web browsers...A user indicates the number of virtual Web browsers to be generated...By generating the multiple virtual Web browsers, the configurable stresser can “stress” any Web server with many connections and HTTP requests at the same time.”);

-simultaneously executing the second plurality of copies of test code while recording times between events in each of the second plurality of copies o test code. (Col. 8, lines 41-61, “...The

timer is used to test the timing of the computer programs, or any other program on the Web server...”);

-repeating a predetermined number of times the steps of creating plural copies of the test code and simultaneously executing the plural copies while recording event times. (Col. 7, line 64 – col. 8, line 3, “The sequential command...executed sequentially rather than randomly at each virtual Web browser...”);

-analyzing the recorded times to present information on the performance of the component of the application under test as a function of load. (Col 8, lines 57 – 60, “...the configurable stresser will generate final statistics of the times measured...”);

Per claim 34, Dantressangle disclosed:

This is a computer program product version of the limitations as addressed in claim 31.

Therefore, claim 34 is rejected under the same rationale as claim 31.

Claim Rejections - 35 USC § 103

14. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

15. Claims 24 – 26 and 28- 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 6,446,120 to Dantressangle, in view of U.S. Patent 6,401,220 to Grey et al.

Dantressangle disclosed a method, apparatus, and article of manufacture for stress testing a server. He disclosed creating test code, executing tests and analyzing data. However, Dantressangle did not expressly teach specifics regarding storage format of data, such as rows,

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columns and storing in a comma separated values (.csv) format. However, Grey did provide more details on storage format in his invention to create and execute test sequences and produce a result collection.

Per claim 24, Grey disclosed:

-datatable includes a plurality of rows and a plurality of columns wherein said columns are used for parameters and said rows represent users. (Col. 47, lines 63-66, “The limit data is in table format where the row names are step names and the column headings are the names of step properties that begin with Limit.”).

Therefore, it would have been obvious, to one of ordinary skill in the art, at the time of the invention, to modify the invention of a configurable stresser for a web server, as taught by Dantressangle, with the more specific data arrangement in rows, columns, and .csv as taught by Grey, because the techniques are well known in the art for arranging data in a logical manner for parsing, storing and retrieving.

Per claim 25, Grey disclosed:

-datatable is in a .CSV format. (Col. 46, lines 48-49, “Valid formats are tab-delimited text (.txt), comma-delimited text (.csv), and Excel file (.xls).”).

Per claim 26, Grey disclosed:

-datatable contains fewer rows than the number of virtual users provided by said test engine, then said test code will cycle through said data table and then start over beginning with the first row of said datatable. (Col. 51, lines 27-31, “...the user configures pre-test operations and/or post-test operations in the process model. This involves creating steps and code modules to

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implement the desired functionality of the pre-test operations and/or post-test operations.” Also, Col. 52, lines 10-12, “...the user configures variables, parameters, and/or types...”).

Per claim 28, Grey disclosed:

Claim 28 contains limitations as recited in claim 24. Therefore, claim 28 is rejected under the same rationale as claim 24.

Per claim 29, Grey disclosed:

Claim 29 contains limitations as recited in claim 26. Therefore, claim 29 is rejected under the same rationale as claim 26.

Per claim 30, Grey disclosed:

Claim 30 contains limitations as recited in claim 25. Therefore, claim 30 is rejected under the same rationale as claim 25.

16. Claims 32, 33, 35, and 36 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 6,446,120 to Dantressangle, in view of U.S. Patent 6,237,135 to Timbol.

Dantressangle disclosed stressing a server by creating and executing a plurality of tests carried out by clients upon the server. Dantressangle did not disclose specifics regarding the type of program located on the server. However, Timbol did provide more details on JAVA programs and their ability for compression. Compression and decompression of JAVA files into JAR files is well known in the art.

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Per claim 32, Timbol disclosed:

Class file is provided as a compressed file. (Col. 19, lines 24 – 27, “A Java Bean is a collection of one or more Java classes, often bundled into a single JAR (Java Archive) file, that serves as a self-contained, reusable component.”).

Therefore, it would have been obvious, to one of ordinary skill in the art, at the time of the invention, to modify the invention of a configurable stresser for a software program on a web server, as taught by Dantressangle, by more specifically stating the software program located on the server is a JAVA program, including JAVA compression of classes in JAR, as taught by Grey, because JAVA is one of many suitable programming languages for a middle tier server and the techniques are well known in the art for grouping class files together in a compressed format.

Per claim 33, Timbol disclosed:

Compressed file comprises a Java Archive file. (Col. 19, lines 24 – 27, “A Java Bean is a collection of one or more Java classes, often bundled into a single JAR (Java Archive) file, that serves as a self-contained, reusable component.”).

Per claim 35, Timbol disclosed:

Claim 35 contains limitations as recited in claim 32. Therefore, claim 35 is rejected under the same rationale as claim 32.

Per claim 36, Timbol disclosed:

Claim 36 contains limitations as recited in claim 33. Therefore, claim 36 is rejected under the same rationale as claim 32.

Conclusion

17. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

U.S. Pat No. 4,617,663 to Lake et al., (Interface testing of Software systems, generating software scripts.)

U.S. Pat No. 5,671,351 to Wild et al., (System and method for automated testing and monitoring of software applications, outputs report.)

U.S. Pat No. 5,812,780 to Chen et al., (Method, system and product for assessing a server application performance.)

U.S. Pat No. 5,881,269 to Dobbelstein, (Simulation of multiple local area network clients on a single workstation.)

U.S. Pat No. 6,002,871 to Duggan et al., (Multi-user application program testing tool.)

U.S. Pat No. 5,974,572 to Weinberg et al., (Software system and methods for generating a load test using a server access log. Mercury Interactive Corporation products are addressed.)

18. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mary Steelman, whose telephone number is (703) 305-4564. The examiner can normally be reached Monday through Thursday, from 7:00 A.M. to 5:30 P.M. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gregory Morse can be reached on (703) 308-4789.

The fax phone numbers are (703) 746-7240 for regular communications and (703) 746-7239 for After Final communications. Any inquiry of a general nature or relating to the status of

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this application or proceeding should be directed to the receptionist whose telephone number is
(703) 305-3900.

MS



10/03/2002



ANIL KHATRI
PRIMARY EXAMINER